

- 37 -

## CLAIMS

1. A wireless communication system which comprises a first wireless communication device that stores information to be transmitted, and a second  
5 wireless communication device that receives the information and applies a predetermined process to the information, wherein

each of said first and second wireless communication devices comprises:

10 determination means for determining a user's instruction for establishing a wireless communication channel; and

communication establishment means for, when said determination means determines that the user's  
15 instruction is detected, executing a process for establishing a wireless communication within a predetermined time period, and

when a communication channel is established by said communication establishment means of said first  
20 and second wireless communication devices, said first wireless communication device transmits information to said second wireless communication device, which applies the predetermined process to the received information.

25 2. A wireless communication device comprising:

determination means for determining an operator's instruction for establishing a wireless communication

- 38 -

channel;

communication establishment means for, when said determination means determines that the instruction is detected, executing a process for establishing the  
5 wireless communication channel with another wireless communication device at which an instruction for establishing the wireless communication channel has been made within a predetermined time period; and

communication means for, when said communication  
10 establishment means establishes the wireless communication channel, communicating with the other wireless communication device.

3. The device according to claim 2, further comprising:

15 transmission means for, when said determination means determines that the wireless communication channel establishment instruction is detected, transmitting a request signal that requests to establish the wireless communication channel; and

20 detection means for detecting a response to the request signal transmitted by said transmission means, and detecting a wireless communication channel establishment request signal from another wireless communication device, and

25 in that said detection means executes a process within the predetermined time period.

4. The device according to claim 2, wherein said

- 39 -

wireless communication device comprises an image sensing device, and the other wireless communication device comprises a device for printing a sensed image or a storage device for storing the sensed image.

5     5.     The device according to claim 2, further comprising power supply control means for, when it is determined that the wireless communication channel establishment instruction is detected, turning on a power supply of a communication function unit required  
10 to make a wireless communication, and for, when the communication establishment process by said communication establishment means has failed, turning off the power supply of the communication function unit.

6.     The device according to claim 2, wherein when no  
15 candidate device or at least two candidate devices are detected upon establishing the wireless communication channel, the communication establishment process is aborted.

7.     The device according to claim 2, wherein upon  
20 establishing the wireless communication channel, when only one candidate device is detected, the communication channel is established, when a plurality of candidate devices are detected, a list is displayed to prompt an operator to select one of the candidate  
25 devices, and the communication channel is established with the selected candidate.

8.     The device according to claim 2, further

- 40 -

comprising:

selection means for selecting information to be transmitted, and

in that when said selection means has already  
5 selected the information to be transmitted upon  
establishing the wireless communication channel by said  
communication establishment means, said communication  
means executes a transmission process of the selected  
information.

10 9. The device according to claim 2, further  
comprising:

search means for, when said determination means  
determines that the wireless communication channel  
establishment instruction is detected, searching for a  
15 communication partner in accordance with a plurality of  
communication parameters, and

in that said communication establishment means  
establishes the wireless communication channel with the  
communication partner found by said search means.

20 10. The device according to claim 2, wherein said  
wireless communication device can make communications  
in a plurality of communication modes, and

when said determination means determines that the  
wireless communication channel establishment  
25 instruction is detected, said communication  
establishment means executes a process for establishing  
the wireless communication channel in a first

communication mode.

11. The device according to claim 10, further comprising:

switching means for, when a second communication  
5 mode is set before the operator inputs the instruction, switching the second communication mode to the first communication mode, and

in that said switching means switches the first communication mode to the second communication mode  
10 upon completion of the communication with the other wireless communication device.

12. A wireless communication device comprising:

determination means for determining an operator's instruction for establishing a wireless communication  
15 channel;

detection means for executing a detection process of a wireless communication channel establishment request signal transmitted from another wireless communication device for a predetermined time period in  
20 response to determination of the instruction by said determination means; and

communication establishment means for executing a process for establishing the wireless communication channel in response to detection by said detection  
25 means.

13. The device according to claim 12, further comprising transmission means for, when said detection

- 42 -

means detects the establishment request signal,  
transmitting a response signal to the establishment  
request signal.

14. The device according to claim 12, further  
5 comprising transmission means for controlling said  
detection means to start the detection process in  
response to determination of the instruction by said  
determination means, and transmitting a request signal  
that requests to establish the wireless communication  
10 channel.

15. The device according to claim 12, wherein said  
wireless communication device can also make a wired  
communication, and  
the operator's instruction is ignored during a  
15 process of information received via the wired  
communication.

16. The device according to claim 12, wherein said  
wireless communication device can also make a wired  
communication, and  
20 when said determination means determines that the  
instruction is detected during a process of information  
received via the wired communication, the process of  
information received via the wired communication is  
interrupted, and a communication is made via the  
25 wireless communication channel established by said  
communication establishment means.

17. A method of controlling a wireless communication

device, comprising:

a determination step of determining an operator's instruction for establishing a wireless communication channel;

5 a communication establishment step of executing a process for establishing the wireless communication channel with another wireless communication device at which an instruction for establishing the wireless communication channel has been made within a  
10 predetermined time period since it is determined in the determination step that the instruction is detected;  
and

a communication step of communicating, when the wireless communication channel is established in the  
15 communication establishment step, with the other wireless communication device.

18. A method of controlling a wireless communication device, comprising:

a determination step of determining an operator's  
20 instruction for establishing a wireless communication channel;

a detection step of executing a detection process of a wireless communication channel establishment request signal transmitted from another wireless  
25 communication device for a predetermined time period since it is determined in the determination step that the instruction is detected; and

- 44 -

a communication establishment step of executing,  
when the establishment request is detected in the  
detection step within the predetermined time period, a  
process for establishing the wireless communication  
5 channel with the other wireless communication device.